

NSC BRIEFING

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SECURITY INFORMATION

4 June 1953

SOVIET DELIVERY CAPABILITIES TO UNDERTAKE AN
ATTACK ON THE UNITED STATES

At present the capability of the Soviet Union to undertake delivery of atomic weapons to the United States is limited to delivery by TU-4 aircraft, by V-1 type missiles launched from submarines, or by clandestine means. Of these three 25X1C methods, [REDACTED] the TU-4 capability. A more modern type of aircraft may possibly appear in limited quantities by mid-1955, nevertheless, major reliance, even then, would probably be placed on the TU-4's of the Long Range Air Force w [REDACTED] 25X1X

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The history of the Russian TU-4 began late in 1944 when four US B-29 s landed in the Soviet Far East and were interned. At least one of these aircraft, including its electronics equipment, was in fully operable condition. By copying this aircraft, the Russians were able to construct their first modern medium bomber, the TU-4. The TU-4 was a surprise to intelligence when first seen by Western observers at Tushino Airport, Moscow, on Soviet Aviation Day, 3 August 1947. Incidentally, this copying job indicated a high order of urge and of technical competence.

The appearance of the first TU-4 in 1947 necessitated continuing estimates of TU-4 production and of the air order of battle of the Soviet Long Range Air Force.

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By these means, we estimate that approximately 1,672 TU-4 aircraft have been produced by the Soviet Union since the initial production of about 20 during 1947.

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Somewhat over 200 of these are estimated lost to attrition, and about 250 are probably available for reserve. The remainder are believed assigned to operational air regiments training establishments, etc.

The 38 operating regiments of the Soviet Long Range Air Force, [REDACTED] 25X1C

25X1C [REDACTED] have an estimated authorized strength of 1,220 TU-4's. Of this organizational figure, we estimate that between 900 and 1000 TU-4 aircraft are actually in these operating units. We believe that the actual strength in the units will equal the 1,220 authorized strength by mid-1954 and may decline to 1100 by mid-1955.

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A tapering off in the TU-4 program should be expected in the near future.

The succeeding phase in the development of the Soviet Long Range Air Force will probably be the introduction of heavy bombers and jet medium bombers.

A Soviet prototype four-engine heavy bomber, designated the Type 31, was observed in flight at Moscow on 8 July 1951, Soviet Aviation Day. We believe that aircraft powered by reciprocating engines, and that turbo-prop engines would be required to produce satisfactory military performance. [REDACTED] 25X1C

25X1C [REDACTED] we believe that a turbo-prop engine, designed by a German group in the Soviet Union, passed Soviet initial acceptance tests in November 1950. While there is no evidence of the production of either the Type 31

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aircraft, or of a suitable turbo-prop engine, and the turbo-prop engine were successful, and if development for production was undertaken in 1951, limited production could begin in 1953 with about 180 aircraft produced by mid-1955.

As for jet medium bombers, [REDACTED] indicates that 25X1C such a bomber known to be under development is the German-designed EF-150. While flight testing might already have occurred, there is no evidence to confirm such testing or that production is planned or in progress. However, it is possible that up to 120 jet medium bomber aircraft might be available by mid-1955.

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Now let us look at the capabilities of the TU-4 because, as already indicated the Soviet Union will be dependent upon TU-4 aircraft for aerial delivery of atomic weapons on continental United States targets until at least 1955. For aerial delivery of atomic weapons on Western Europe, the United Kingdom and much of the Middle East, the IL-28 jet light bomber probably would be used.

The apparent external characteristics of the TU-4 are similar to those of the original B-29. Therefore, the range and speed capabilities estimated below are based on the original U.S. type. The TU-4 thus would be capable of carrying a 10,000 lb. bomb load at a cruising speed of 175 knots and a maximum speed of 347 knots. It would have a combat radius of 1,700 nautical miles and a combat range of 3,100 nautical miles.

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Although we have no indications that she is actually doing so, the Soviet Union is capable of extending the range of the TU-4, by conducting in-flight refueling operations just as our Air Force does on a routine basis, and of modifying the TU-4 in the manner of the American B-29 B. Such modification requires removal of defensive armament except for the tail turret, increase in fuel capacity, and a 2,600 pound reduction in take-off weight. So modified, a TU-4's combat radius would increase to 2,150 nautical miles, and its combat range to 4,000 nautical miles.

Assuming one in-flight refueling, the 2,150 nautical mile radius could be increased to 3,000 nautical miles and the range to 5,600 nautical miles. Refueling

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while outbound and again refueling while on the return leg, could increase the combat radius to 3,700 nautical miles.

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Three regions of Soviet-controlled Europe and Asia, which lie within 4,000

nautical miles of the US industrial triangle Boston-Norfolk-Chicago provide suitable base areas. Those regions are the Kola Peninsula, the Baltic areas, and the Chukotsk Peninsula, which is the nearest of the three. Numerous fields in East Germany and along the Baltic Coast and at least two in the Kola Peninsula could be used as bases for TU-4 operations. There are no known TU-4 fields in the Chukotsk, however, certain fields in that area could be used as staging bases for TU-4's.

Operational training in long range bombing has been going on for at least four and one half years and the Soviet Union has had sufficient numbers of TU-4's to

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conduct such training. However, the lack of combat experience in strategic bombing among ranking air commanders as well as in air crews would probably constitute a handicap.

25X1D1a The Soviet Union obtained models of US optical and radar bombsights and electronic navigation equipment from the interned B-29's as well as from the lend-lease program. On the basis of [REDACTED] it is known that the Soviet Union is using such equipment in training exercises. On the basis of limited information, we believe that the accuracy of the Soviet visual and blind bombing systems is comparable but almost certainly somewhat less than that of current US systems.

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Having considered the characteristics of the aircraft, the airfields, the state of training, and the bombing equipment, we can turn to these charts and see the

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Thus it can be seen that the Soviet Union is capable of reaching any area in the United States. The extreme northwestern corner could be reached on two-way missions without aerial refueling. Attack upon the strategic northeastern industrial

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area and on most of the principal strategic bases, certainly would involve a high expenditure of attacking aircraft with probably a lesser expenditure of the crews, on one-way or double refueling missions. If a heavy bomber comes into use by 1955, Soviet two-way missions without in-flight refueling could cover the area.

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With respect to guided missiles, there is no positive evidence that the Soviet

Union has any guided missiles available for operational use. On the other hand,

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[REDACTED] that the Soviet Union

has been conducting an intensive research and development program and has

exploited German progress in this field. [REDACTED] the 25X1C

Soviet Union has produced at least experimental quantities of the V-1 type missile

which could carry a 2,000-lb. warhead to a range of 210 nautical miles at 370 knots.

A modified version under development was probably capable of carrying up to a

4,500-lb. warhead for shorter distances. Launching from a submarine of a V-1

type missile, possibly fitted with an atomic warhead, is estimated to be within

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[REDACTED]

It is not believed to be within current or near future capabilities of the Soviet Union to attack the continental United States by means of intercontinental ballistic missiles.

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The third method of delivery of atomic bombs, that is by clandestine means, is one on which there is no positive evidence. However, we believe that the Soviet Union would not place major reliance on the clandestine delivery of atomic weapons.

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